

REMARKS

Claims 1-7 are all the claims pending in the application.

I. Preliminary Matter

As a preliminary matter, the Examiner again failed to acknowledge foreign priority. Applicant respectfully requests the Examiner to acknowledge Applicant's claim to foreign priority and indicate receipt of the certified copy of the priority document filed on May 5, 2004. Alternatively, Applicant respectfully requests the Examiner to indicate why the foreign priority is not acknowledged. Applicant respectfully notes that a certified copy of the priority document is available on USPTO website (FRPR "Certified Copy of the Priority Application" May, 5, 2004, 14 pages).

II. Summary of the Office Action

The Examiner withdrew the previous grounds of rejection. The Examiner, however, found new grounds for rejecting the claims. Claims 1-7 are rejected under 35 U.S.C. § 103(a).

III. Prior Art Rejections

Claims 1-5 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,507,856 to Chen et al. (hereinafter "Chen") in view of U.S. Patent No. 5,109,152 to Takagi et al. (hereinafter "Takagi"). Applicant respectfully traverses these grounds of rejection at least in view of the following exemplary comments.

Of these rejected claims, only claims 1 and 7 are independent. Independent claim 1 *inter alia* recites: "wherein some but less than all of the data are exchanged in an encrypted form, wherein, in at least a first of the process devices, a communication device determines by hard wiring or programming which of transmission data are encrypted in an encryption device of the first process device, and wherein, in at least a second of the process devices, the communication

device recognizes which of reception data are encrypted and decrypts the reception data in a decryption device of the second process device.” Independent claim 7 *inter alia* recites: “wherein the communication device comprises an encryption device, a decryption device, and means for determining by hard wiring or programming which of transmission data are encrypted in the encryption device and means for recognizing which of reception data are encrypted and decrypting the encrypted reception data in the decryption device.”

In an exemplary, non-limiting embodiment, only data requiring security is transmitted in encrypted form while all other data, in particular data used for process control and regulation, is preferably transmitted mainly in unencrypted form. In addition, in order not to interfere with the process control and regulation, the unencrypted data is preferably communicated with a higher priority than the encrypted data. To this end, the encrypted data and/or the data to be encrypted may first be collected in a memory of the process device. That is, in an exemplary embodiment, only some of the transmitted data is encrypted while other data is transmitted in an unencrypted format. The receiving device will distinguish between the encrypted and unencrypted data.

It will be appreciated that the foregoing remarks relate to the invention in a general sense, the remarks are not necessarily limitative of any claims and are intended only to help the Examiner better understand the distinguishing aspects of the claims mentioned above.

Chen, on the other hand, relates to a system for exchanging and merging messages over a network (*see* Abstract and col. 1, line 35 to col. 14). Chen discloses encoding and not encrypting a purchase order, PO (col. 4, lines 58 to 67). That is, Chen only discloses converting plain text (purchase order PO) into XML code, *i.e.*, encoding the PO. Chen, however, is unrelated to encryption *i.e.*, transforming data so that it is unreadable to anyone without a key. In other words, Chen discloses encoding and not encrypting data. One of ordinary skill in the art would

not take from Chen's disclosure of encoding any teaching or suggestion regarding the claimed encryption.

Furthermore, Chen does not disclose process devices exchanging some but less than all data in the encrypted form, thereby determining by hard wiring or programming which of transmission data are to be encrypted and recognizing which of reception data are encrypted and have to be decrypted. In other words, Chen is unrelated to encrypting only some of the transmitted data and having a device that will analyze the received data and distinguish between encrypted and unencrypted data in these received data. In short, Chen does not disclose or suggest identifying which of the received data needs to be encrypted.

The Examiner alleges that Chen's abstract, Figures 5 and 6, column 3, lines 35-49, and column 4, lines 57-58 discloses that in the known system "some but less than all data are exchanged in encrypted form" (*see* page 2 of the Office Action). However, Chen is unrelated to encryption (encipherment, making secret) but instead refers to encoding (to convert format which may or may not be secure). That is, Chen only discloses encoding generally and not the claimed, specific species of encoding *i.e.*, encryption. Moreover, Chen uses the term encoding only in the context of XML, which means converting plain text into XML code. Thus, Chen neither discloses nor suggests encryption. In addition, there is no suggestion in Chen that only some of the data is encoded.

Takagi discloses a conventional communication apparatus where a first communication device is a card terminal and a second communication device is an IC card. In FIG. 9 of Takagi, a card terminal 400 includes a random number generation means 401 which generates a random number R, a first computation means 402 which performs a functional computation F_1 for first confidential data K_1 and the random number R provided by said random number generation

means 401, comparison means 403 which compares data provided by said first computation means 402 and data entered from an IC card 450, first processing means 406 which performs such data processing as data input/output, storing and operation, first encryption means 404 which encrypts the data sent out from said first processing means by using a first encryption key KE_1 , second decryption means 405 which decrypts encrypted data entered from the IC card 450 by using a second decryption key KD_2 . In Takagi, the IC card 450 which exchanges information with the card terminal 400 comprises second computation means 452 which performs a functional computation F_2 for second confidential data K_2 and the random number R entered from the card terminal 400, second processing means 456 which performs such data processing as data input/output, storing and operation, first decryption means 454 which decrypts encrypted data entered from the card terminal 400 by using a first decryption key KD_1 , and second encryption means 455 which encrypts the data sent out from said second processing means 456 by using a second encryption key KE_2 (col. 1, lines 17 to 43).

Takagi, however, is related to preventing faking of the IC card or card terminal (*see* Abstract and col. 1, lines 5 to 43). In other words, Takagi is unrelated to an automation system. That is, Takagi relates to IC cards and not to a process automation system.

In addition, Takagi clearly shows encryption and decryption of all data which is exchanged between an IC card 450 and a card terminal 400 (Fig. 9). Takagi does not teach exchanging some but less than all data in encrypted form. In other words, Takagi is unrelated to encrypting only some of the transmitted data and having a device that will analyze the received data and distinguish between encrypted and unencrypted data in these received data. In Takagi, the IC terminal or card does not distinguish between the encrypted and unencrypted data. In short, Takagi does not disclose or suggest identifying which of the received data needs to be encrypted.

For at least these exemplary reasons, claims 1 and 7 are patentable over Chen in view of Takagi. Accordingly, Applicant respectfully requests the Examiner to withdraw this rejection of claims 1 and 7. Claims 2-5 are patentable at least by virtue of their dependency on claim 1.

Claims 6 and 8-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen in view of Takagi and further in view of U.S. Patent No. 6,115,646 to Fiszman (hereinafter “Fiszman”). Applicant respectfully notes that claims 8-12 have been cancelled without prejudice or disclaimer. Accordingly, only claim 6 is rejected under 35 U.S.C. § 103(a). Applicant respectfully traverses these grounds of rejection at least in view of the following exemplary comments.

Claim 6 depends on claim 1. Applicant has already demonstrated that Chen in view of Takagi do not meet all the requirements of independent claim 1. Fiszman is relied upon only for its teaching of various keys (*see* page 5 of the Office Action) and as such fails to cure the deficient disclosure of Chen and Takagi. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claim 1. Since claim 6 depends on claim 1, it is patentable at least by virtue of its dependency.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


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Date: October 21, 2008